

[PICTURES IN CLINICAL MEDICINE]

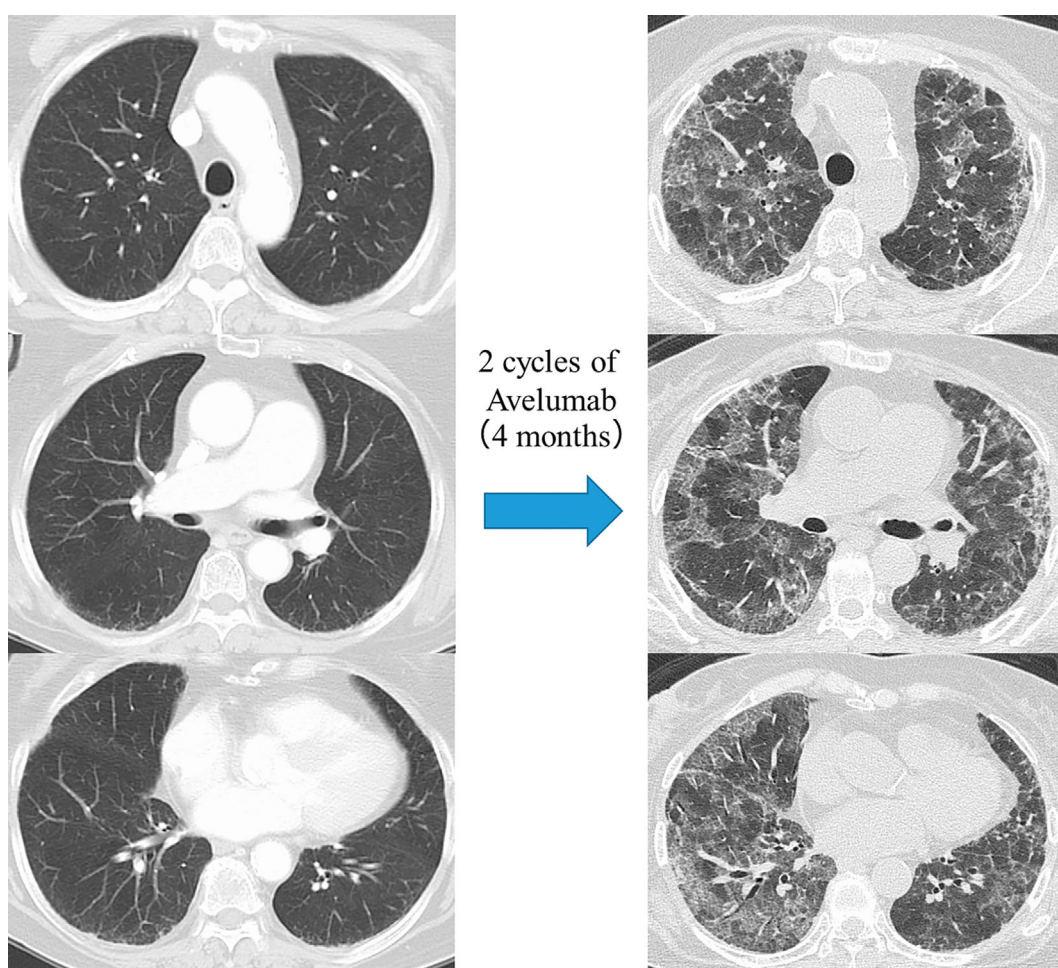
Avelumab-induced Pneumonitis in Metastatic Merkel Cell Carcinoma

Toshiki Morimoto, Kei Yamasaki, Yu Isoshima and Kazuhiro Yatera

Key words: avelumab, drug-induced lymphocyte stimulation test, drug-induced pneumonitis

(Intern Med 61: 2697-2698, 2022)

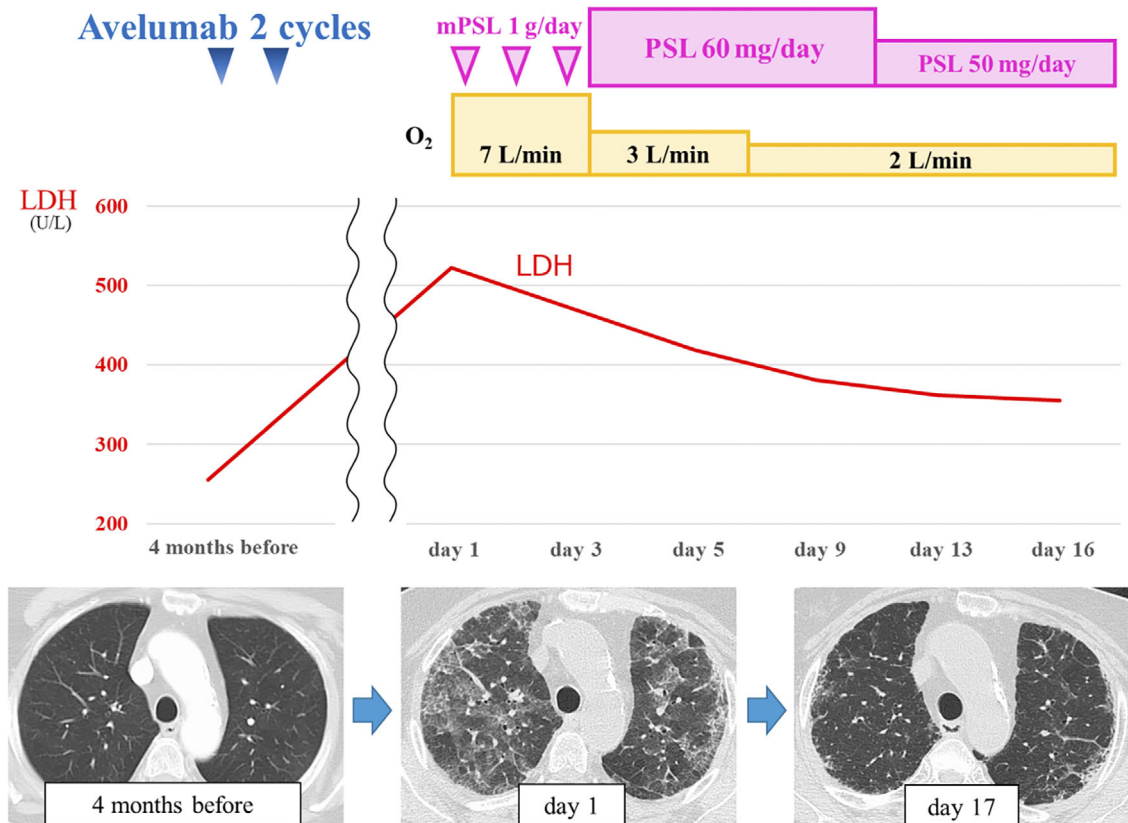
(DOI: 10.2169/internalmedicine.8864-21)



Picture 1.

A 78-year-old Japanese woman was diagnosed with Merkel cell carcinoma of the left forearm and treated by surgical excision. One month after surgery, left axillary lymph node metastasis was detected. Subsequently, she received two cycles of avelumab, an anti-programmed death-ligand 1 mono-

clonal antibody. Four months after chemotherapy, she developed worsening dyspnea. Chest computed tomography revealed diffuse opacities in both lungs with widespread interlobular septal thickening (Picture 1). The laboratory findings revealed elevated serum levels of C-reactive protein (12.76



Picture 2.

mg/dL), lactate dehydrogenase (523 U/L), Krebs von den Lungen-6 (KL-6) (525 U/mL), and surfactant protein D (SP-D) (555 ng/mL), and a drug-induced lymphocyte stimulation test (DLST) was positive for avelumab. Bronchoscopy could not be performed due to her poor respiratory condition (oxygen support by mask 7 L/min). Although a false-positive result of the DLST could not be excluded in the present patient, she was diagnosed with avelumab-induced pneumonitis. She was treated with corticosteroid, following which her clinical, laboratory [KL-6 (203 U/mL) and SP-D (79.1 ng/mL)], and imaging findings improved (Picture 2). Approximately 1% of patients treated with avelumab develop immune-related pneumonitis (1), typically within a few months after treatment. However, the chest imaging findings have not been documented so far, and this is the first report

documenting the chest imaging findings of avelumab-induced pneumonitis.

The authors state that they have no Conflict of Interest (COI).

Reference

1. Kaufman HL, Russell J, Hamid O, et al. Avelumab in patients with chemotherapy-refractory metastatic Merkel cell carcinoma: a multicentre, single-group, open-label, phase 2 trial. *Lancet Oncol* **17**: 1374-1385, 2016.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).